

What is Claimed is:

1. A an optical, path-to-sight link, comprising:
 - a source of light having a beam of light;
 - a controllable beam steering device; and
 - an actuator to permit steering said light beam, the beam steering device being controllable by predetermined control signals.
2. Apparatus in accordance with Claim 1, wherein said controllable beam steering device comprises two axis rotatable mirror capable of reflecting light in any orientation within a predetermined field of view.
3. Apparatus in accordance with Claim 1, wherein said controllable beam steering device comprises a plurality of mirrors, each capable of being rotated in a single axis, capable of reflecting light in any orientation within a predetermined field of view.
4. Apparatus in accordance with Claim 1 wherein said controllable beam steering device comprises a micro-mirror.
5. Apparatus in accordance with Claim 4 wherein said controllable beam steering device comprises a micro-mirror fabricated from silicon.
6. Apparatus in accordance with Claim 4 wherein said controllable beam steering device comprises a micro-mirror fabricated from metal.
7. A an optical, path-to-sight link system, comprising:
 - a transmitting link, comprising,
 - a source of light having a beam of light,
 - a controllable beam steering device,

an actuator to permit steering said light beam, the beam steering device being controllable by predetermined control signals, and

circuitry for modulating said beam of light in accordance with data signals; and

a receiving link, comprising,

a photodetector,

circuitry for generating and sending to said transmitting link a detection signal in response to the detection of the incidence of said light beam on said photodetector, and

circuitry for demodulating said light beam and providing demodulated data signals as a data output.

8. Apparatus in accordance with Claim 7 further comprising circuitry for decoding data having a predetermined format and providing data suitable for modulating said light beam to said circuitry for modulating said light beam.

9. Apparatus in accordance with Claim 7 further comprising circuitry for encoding data demodulated from said light beam to a predetermined format.

10. Apparatus in accordance with Claim 7 further comprising:

circuitry for encoding data demodulated from said light beam to a predetermined format; and

circuitry for decoding data having a predetermined format and providing data suitable for modulating said light beam to said circuitry for modulating said light beam.

11. Apparatus in accordance with Claim 7 wherein said predetermined format comprises an Ethernet protocol format.

12. A an optical, path-to-sight link system, comprising:

2 a transceiver link, comprising:
3 a transmitter portion including
4 a source of light having a beam of light,
5 a controllable beam steering device,
6 an actuator to permit steering said light beam, the beam
7 steering device being controllable by predetermined control signals,
8 and
9 circuitry for modulating said beam of light in accordance with
10 data signals; and
11 a receiver portion, comprising,
12 a photodetector,
13 circuitry for generating and sending to said transmitting link a
14 detection signal in response to the detection of the incidence of said
15 light beam on said photodetector, and
16 circuitry for demodulating said light beam and providing
17 demodulated data signals as a data output.

1 13. Apparatus in accordance with Claim 6, further comprising:
2 circuitry for changing the format of data to be transmitted to a format
3 suitable for said data signals; and
4 circuitry for changing the format of said data output to a different
5 format suitable for external circuitry or a network.

1 14. Apparatus in accordance with Claim 1 wherein said source of light
2 comprises a VCSEL laser diode.

1 15. Apparatus in accordance with Claim 4, further comprising a plurality
2 of coil actuators for controlling the rotation of said micro-mirror.

1 16. Apparatus in accordance with Claim 15 wherein said coil actuators are
2 controlled by a microprocessor and digital to analog converters disposed
3 between said microprocessor and said coil actuators.

1 17. Apparatus in accordance with Claim 6 wherein said circuitry for
2 generating and sending to said transmitting link a detection signal comprises
3 circuitry for sending a radio frequency detection signal.

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